

**A Personal Clothing Construction Guidesheet
for use in Flat Pattern Design**

An Honors Thesis/Creative Project (ID 499)

by

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Ball State University

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Thesis
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.B39

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This project deals with clothing design and construction; the final product is a computer program which yields personalized clothing construction guidesheets for use by students in the flat pattern design course here at Ball State University. The students enrolled in HTC 300/501 actually design original garments and the patterns which will be used to make the garments. Particularly at the undergraduate level, the students do not have highly developed sewing skills, and they need step by step instructions on how to put a garment together. A commercially purchased pattern includes not only the pattern pieces, but also an instruction sheet on how to construct the garment. The students have not had written instructions in the past and have relied on the professor's knowledge of clothing construction.

The original concept for this project was formed by Dr. Sue H. Whitaker during visits to actual garment factories. She observed that in the clothing industry, all of the instructions necessary to construct basic garments are stored on a computer. She witnessed the pattern-maker retrieving the various files necessary to put together a commercial pattern guidesheet, and the idea for this project was conceived.

Dr. Whitaker later had the opportunity on campus to participate in a computer workshop which dealt with the Courseware Authoring System (CAS) and Digital Authoring Language (DAL), both of which are used by many faculty to create lessons on the VAX computer. Dr. Whitaker began to create this guidesheet program using the skills which she acquired in the computer course; however, she ran into many difficulties and was unable to complete the project.

As a computer science major with a strong interest in clothing and textiles, I was intrigued by this project because it allowed me to combine two subjects that I enjoyed. I was enrolled in the HTC 300 course when I began discussing this project with Dr. Whitaker, and I could see firsthand that there was a need for written, step by step instructions on garment construction.

I had never worked with CAS or DAL, so my work in the beginning was to learn the language and its environment. Once I had gained a working knowledge of DAL, I analyzed Dr. Whitaker's program to determine how it functioned and what the problem points were. More time and research were necessary before I was able to get the program running, but alas, I was able to taste success when it began to work! Dr. Whitaker had previously outlined some necessary expansions for the program, which I have implemented in the final project.

Once the program was functioning properly, I published it as a lesson called GUIDE21 within CAS. Within this CAS interface, the students can run assigned lessons. This lesson has been successfully tested with an entire class of HTC 300 students running the program at one time, and GUIDE21 will be used by students in the course in the future.

The compilation of this documentation has been a separate project in itself. Included are comprehensive instructions for both the students and professors, along with information which will be helpful should someone attempt to modify this project in the future.

GUIDE21

A CAS lesson developed by Sue Whitaker and Barbara Baumann for use in HTC300.

This computer program was developed to provide you with an individual guidesheet to use in the construction of your original garment. You will be asked a series of questions and your responses should be based on the design of your garment.

To run this lesson you will need the following:

- a. **VAX computer account.** Show your BSU id in RB 165 to obtain an account. With this you get a USERNAME and a PASSWORD to allow you access to the computer.
- b. **CAS information.** This is arranged by your instructor. For this lesson the information is as follows:
Group name : **HTC300**
CAS name : This is usually your first name, but there will be some variations if other students in the class have the same name.
- c. **Computer Terminal.** To run this program you will need either a VT240 or a GIGI terminal.

Logging on the Terminal

1. Press the "control" button (on the far left of the keyboard) and while holding it down, type the letter "N" twice. Now hit the "RETURN" key (on the far right of the keyboard).
**Once you have done this, a welcome message should appear that will ask you to select a system.
2. We will be using the Cluster, so type the letter "C" (upper or lowercase) and then press the "RETURN" key.
**A new message will now appear which prompts you for your username.
3. Type in your USERNAME and then press the "RETURN" key.
4. Type in your PASSWORD and then press the "RETURN" key. (your password will NOT show on the screen)
5. After a variety of messages, you will see a \$ (dollar sign) at the left of your screen, letting you know that you have been successful at logging on. If you get an error message, try again or ask the assistant for help.

6. At the dollar sign, type CAS and then press RETURN.

Running the lesson in CAS

1. After a "one moment please" screen, you should be asked for your Group Name, to which you respond with **HTC300** and press RETURN.
2. Next you will be asked for your CAS Name. This is generally your first name. (If others in the class have the same name, the instructor will give you your CAS name.) Type in your CAS name and hit RETURN.
3. You will see a Student Menu with arrows pointing to the "Assignment" selection. Press RETURN to choose this selection.
4. An Assignment Menu will appear with one or more assignments listed. Use the arrow keys (on the far right of the keyboard) to select GUIDE21 and then press RETURN.
5. The lesson should start at this time. You must answer each question in the lesson.
6. When you complete the program, your personal guidesheet will be printed at the Printer in the front of RB134.

Ending a Lesson

1. When you have finished the lesson, the computer should go back to the Assignment Menu.
2. To exit, press the "PF4" button. (This is on the far upper right corner of the keypad.)
3. You should now be at the Student Menu. Type another "PF4" and you will be back at the \$.
4. At the dollar sign, type in the letters "LO" (this stands for logoff) and press RETURN to log off the computer. You are now finished!! It is very important that you get a "logged off" message; if you don't, check with the lab assistant.

Guide21...The Instructor's Instructions

As an instructor, you should be familiar with the computer to the point that you understand the preceding instructions for the student on how to run the lesson. Moreover, there are additional responsibilities that the instructor must undertake. These responsibilities include:

- a. Registering group members.
- b. Adding or deleting the records of group members.
- c. Assigning lessons.
- d. Registering your class each semester with UCS.

The procedures for logging on are the same as those for a student; however, the menus which appear once you are in CAS will differ if you are listed as an instructor. As a group instructor, your main menu will look like this:

COURSEWARE Group Instructor Menu 000000	
AUTHORING SYSTEM	
Group: HTC300	
What would you like to do?	
))) UPDATE REPORTS ASSIGNMENT	Group Update Reports menu Assignment edit
BROWSE MAIL	Browse in available lessons Run the system mail program
EXIT	Exit system (same as PF4)
PF2 = Help, PF4 = Exit	
Use ↑↓, then RETURN	

Registering Group Members

See the section of this manual entitled "Batch Registration of Students"

Adding or Deleting Group Members

"Group Update" is the option to choose from the Group Instructor Menu. Once this is selected, the following screen will appear:

COURSEWARE Group Edit Menu		000000
AUTHORING SYSTEM		
Group: HTC300		
What would you like to do?		
))) EDIT	Edit group information	
CHANGE	Change user information	
DELETE	Delete user	
LIST	List of users	
STUDENT	Register a student	
INSTRUCTOR	Register a group instructor	
AUTHOR	Register an author	
BATCHREG	Batch Student Registration	
EXIT	Exit (Same as PF4)	
PF2 = Help, PF4 = Exit		Use ↑↓, then RETURN

From this menu, you can choose to delete a student from your class; subsequent screens will ask for the student's CAS name and verify that you wish to delete the record. You may also add a student to the group by choosing the STUDENT option; however, to register an entire class of students you should follow the above instructions for registering group members.

The best way to learn about CAS is to experiment. Try the LIST option to see what it does! In order to register another instructor, choose the INSTRUCTOR selection and assign a new CAS name.

Assigning Lessons

At the "Group Instructor Menu," select the ASSIGNMENT option. A "Group Assignment Menu" will appear and from this menu you can ADD new assignments, DELETE assignments and LIST current assignments.

You will need to ADD the lesson named "GUIDE21" to the assignment list each semester.

Registering The Class With UCS

You must inform University Computing Services at the beginning of each semester during which you intend to use the lesson **GUIDE21** and the group name **HTC300**. To do this, call the CAS system manager, Marta McCoy (1541), and tell her the group name you wish to register.

Printing the Guidesheet

Although the guidesheet is automatically printed in RB 134, it is also saved in the student's directory as **GUIDE.LIS** and may be sent to any printer on campus by using the assigned printer name. For example, to print in NQ 243, the student would type in the following at the dollar sign prompt: \$

P_NQ243 guide.lis

Due to the fact that the names assigned to each printer are changed from year to year, I have not listed the names here; however, the lab assistants can inform the students of the current assigned printer names.

Computer Labs

Computer labs on campus which have the proper VT240 or GIGI terminals are:

RB134D	The program automatically prints out the guide sheet in RB 134, so this is the simplest choice. RB 134 is the only 24 hour lab on campus.
PA 223	This lab is located conveniently in the practical arts building for use by the htc 300 class.
BL L08	This lab, which can be found in the basement of the library, is staffed with assistants who are familiar with CAS.
NQ 243	This lab also has lab assistants who are knowledgeable in CAS.
BB 220	The lab in BB220 is primarily a microcomputer lab, but there are currently five VT240 terminals located here.

Batch Registration of Students

- 1) Create a list of students by running the program CLASS.

```
$ CLASS

Type a ? at any prompt for help

Class Discipline (^Z or return to exit): htc
Course number: 300
Section number: 1
Quarter number: 3
Do you want a CAS list, or a VAXmail list (C or U)? c
Do you want username format, or first name format (U or F)? f
***** NOTICE *****
    You will be responsible for duplicate names in the
    file. Please be aware that if people add to the class, or
    drop from the class, their record will be added/removed from
    the file in alphabetical order by last name when you run the
    CLASS program again.

Filename for output [3HTC300001.CAS]: class.lis
Type a ? at any prompt for help

Class Discipline (^Z or return to exit): E - it
$

$ type class.lis
JENNIFER      00JLBODENMIL      BODENMILLER, JENNIFE
DIANN         00DSMANN          MANN, DIANN S
BLAKE         00BATRUEX         TRUEX, BLAKE A
DANA          00DLWILKINSO      WILKINSON, DANA L
LISA          03LAWILLIAMS      WILLIAMS, LISA A
$
```

****Check this file for duplicate first names. If any exist, you must edit this file and make the names unique. (i.e. Jen1 and Jen2) Also, if there is more than one section of the class, the lists must be combined into one.

- 2) To access CAS, type CAS and press RETURN.

```
$ CAS
```

- 3) CAS will prompt you for a group name (your class group), and a CAS name.

COURSEWARE		WELCOME	000000
== AUTHORIZING SYSTEM ==			
Delivery System Version 1.5			
Group	▶ HTC300_____		
C.A.S. Name	▶ SUE_____		

- 4) The Group Instructor Menu will appear. Choose Update.

COURSEWARE		Group Instructor Menu	000000
== AUTHORIZING SYSTEM ==			
		Group: HTC300	
What would you like to do?			
>>>	UPDATE	Group Update	
	REPORTS	Reports menu	
	ASSIGNMENT	Assignment edit	
	BROWSE	Browse in available lessons	
	MAIL	Run the system mail program	
	EXIT	Exit system (same as PF4)	
PF2 = Help, PF4 = Exit			
Use ↑↓, then RETURN			

5) The Group Edit Menu is displayed; choose "batchreg."

COURSEWARE Group Edit Menu		000000
== AUTHORIZING SYSTEM ==		
Group: HTC300		
What would you like to do?		
EDIT	Edit group information	
CHANGE	Change user information	
DELETE	Delete user	
LIST	List of users	
STUDENT	Register a student	
INSTRUCTOR	Register a group instructor	
AUTHOR	Register an author	
))) BATCHREG	Batch Student Registration	
EXIT	Exit (Same as PF4)	
PF2 = Help, PF4 = Exit Use ↑↓, then RETURN		

6) CAS prompts you for the following information.

COURSEWARE Batch Registration		000000
== AUTHORIZING SYSTEM ==		
Group: HTC300		
Name of input file?) CLASS.LIS	
Do you want a listing file?) Y	
Name of listing file < BSU\$USER_3:[00SHWHITA]STUDENTS.LIS >)		
Do you want to confirm all entries?)	Y	

7) If you chose to confirm all entries, CAS will ask you to verify each student. (This is optional.)

COURSEWARE Batch Processing		000000
== AUTHORIZING SYSTEM ==		
Add this student, YES or NO, (YES is the default)?		
C.A.S. Name	UAX Name	Real Name
JENBODEN	00JLBODENMIL	BODENMILLER, JENNIFE

8) After the batch registration is completed, this screen appears.

COURSEWARE Processing Statistics		000000
AUTHORING SYSTEM		
		Group: HTC300
4	records were processed.	
4	students were added successfully.	
1	students were not added.	
Listing file is BSU\$USER_3:100SHWHITA1STUDENTS.LIS		
<i>Press RETURN to continue.</i>		

9) The list feature displays all users within a group.

COURSEWARE Group Edit Menu		000000
AUTHORING SYSTEM		
What would you like to do?		Group: HTC300
EDIT	Edit group information	
CHANGE	Change user information	
DELETE	Delete user	
))) LIST	List of users	
STUDENT	Register a student	
INSTRUCTOR	Register a group instructor	
AUTHOR	Register an author	
BATCHREG	Batch Student Registration	
EXIT	Exit (Same as PF4)	
PF2 = Help, PF4 = Exit		Use ↑↓, then RETURN

COURSEWARE Users in HTC300				000000
AUTHORING SYSTEM				
H.S. name	Actual name	Status	MAY/01/85 Username	
BLAKE	TRUEX, BLAKE A	Student	00BATRUEX	
DANA	WILKINSON, DANA L	Student	00DLWILKINSO	
DIANN	MANN, DIANN S	Student	00DSMANN	
JENNIFER	BODENMILLER, JENNIFE	Student	00JLBODENMIL	
* - Logged in. * - Running a lesson. Press RETURN to continue, 'Q' to quit. >				

10) Always remember to leave CAS with EXIT or "PF4."

Contact People

Marta McCoy

University Computing Services, RB 237

285-1541

Marta is the CAS system manager. She is the person to contact each quarter about registering a class under CAS. She is also the person who can help when a CAS user needs his/her id reset.

Herb Stahlke

English Department, RB 361

285-8413

Lathrop Johnson

Foreign Languages, NQ 146

285-1374

These two professors taught the DAL seminar which Dr. Whitaker attended. They have worked extensively with DAL lessons.

Sue Whitaker

Home Economics, PA 150A

285-5931

Dr. Whitaker is the person most familiar with this specific application and its history; the code and files for this project reside in her VAX account (00shwhitaker).

Sources of Help

COMPUTERWISE

The following two manuals are available through University Computing Services. Dr. Sue Whitaker owns a copy of each text.

Courseware Authoring System User's Guide

This book will answer any questions concerning CAS for the student, instructor, and author. CAS questions may also be directed to the system manager of CAS in University Computing Services.

Courseware Authoring System DAL Reference Manual

This manual was the source I used to learn the DAL language, which is the language used in GUIDE21. This text would be required to make changes to the program.

SEWINGWISE

The "Unit method..." is one which each student should own, since it is required for earlier HTC courses; therefore, it is cited as a reference for further help on the printed guidesheet.

The Singer reference book was used to derive instructions for some of the construction techniques described by the guidesheets.

Unit method of clothing construction. by the Iowa Home Economics Association, Iowa State University Press, 1977.

Singer Sewing Essentials. by the editors of Cy DeCosse, Cy Decosse Inc., 1984.

How to Publish a Lesson in CAS

The following pages describe the method for publishing a lesson in CAS, such as GUIDE21. Unless GUIDE21 is deleted from the list of published CAS lessons, this procedure will not have to be repeated. If revisions are made to the program, however, it will need to be republished.

A lesson can only be published by an **author**. As shown in this example, the author's publishing group for this project is Dr. Whitaker's and is called **PUBWHITAK**. Her CAS name for this group is SUE; the password is not public information.

How to Publish a Lesson in CAS

- 1) Compile and link the lesson in your VAX/VMS area.

```
$ DAL GUIDE21.DAL
$ LINK GUIDE21
```

- 2) To access CAS, type the letters CAS and press the RETURN key.

```
$ CAS
```

- 3) CAS will prompt you for a group name (your publishing group), CAS name, and password.

COURSEWARE	WELCOME	9120251
== AUTHORIZING SYSTEM ==		
Delivery System Version 1.5		
Group)PUBWHITAK_____	
C.A.S. Name)SUE_____	
Password)	

4) The Author Menu is displayed; press return to choose publish.

COURSEWARE Author Menu		000000
= AUTHORIZING SYSTEM		
What would you like to do?		
))) PUBLISH	Publish a lesson	
RE-PUBLISH	Republish a lesson	
UNPUBLISH	Delete a lesson	
MODIFY	Modify lesson information	
BROWSE	Browse through published lessons	
REPORT	Reports Menu	
EXECUTE	Execute a lesson	
MAIL	Run the system mail program	
EXIT	Exit menu (Same as PF4)	
PF2 = Help, PF4 = Exit		Use ↑↓, then RETURN

5) When publishing a lesson, an author must supply this information:

COURSEWARE Lesson Information		000000
= AUTHORIZING SYSTEM		
Lesson name.	GUIDE21_____	
Description.	PERSONAL INSTRUCTION SHEET FOR FLAT PATTERN DESIGN CLASS_____	
Group Restriction.	HTC300_____	
Is the above information correct? (Y or N) Y		

****A lesson can be restricted to one group. If it is restricted, it will only be available to the group specified.

Was this lesson compiled with DAL Version 1.5 or later? Y
If you are not sure, type Q to quit. Otherwise, type Y or N.

6) Enter any auxiliary files the lesson requires.

COURSEWARE Lesson Information		000000
== AUTHORIZING SYSTEM ==		
Lesson name. . . .	GUIDE21_____	
Description. . . .	PERSONAL INSTRUCTION SHEET FOR FLAT PATTERN DESIGN CLASS_____	
Group Restriction.	HTC300_____	
Type in the files (one per line) that this lesson requires.		
➤ swnames.lis_____		
Press RETURN to end entering the files.		

After displaying this message, CAS will return to the Author Menu.
If there are no error messages, the lesson was successfully published.

Publishing lesson. . .

7) Always choose EXIT or press PF4 to leave CAS.

COURSEWARE Author Menu		000000
== AUTHORIZING SYSTEM ==		
What would you like to do?		
PUBLISH	Publish a lesson	
REPUBLISH	Republish a lesson	
UNPUBLISH	Delete a lesson	
MODIFY	Modify lesson information	
BROWSE	Browse through published lessons	
REPORT	Reports Menu	
EXECUTE	Execute a lesson	
MAIL	Run the system mail program	
))) EXIT	Exit menu (Same as PF4)	
PF2 = Help, PF4 = Exit		
Use ↑↓, then RETURN		

The files necessary to run Guide21 can be found in Dr. Sue Whitaker's VAX account. Her VAX address is : **BSU\$USER_3:[00SHWHITA]**

The program may be run directly from her area by typing the following at the "\$." **\$ run bsu\$user_3:[00shwhita]guide21**

Using this method of running the program bypasses the CAS interface, and would therefore be of use to anyone not registered in the course.

The protection has been set on all of the files necessary for the program so they cannot be deleted without first setting the protection.

The following are the data files which contain instructions for various garment construction techniques:

STAYST.	DART.	GATHER.
TUCK.	PLEAT.	PLAIN.SM
FLATFELL.SM	FRENCH.SM	KNITS.SM
OTHER.SM	NO.ZIP	LAPPED.ZIP
FLY.ZIP	OTHER.ZIP	NO.CLR
SHIRT.CLR	CONVERT.CLR	PETERPAN.CLR
SHAWL.CLR	BAND.CLR	OTHER.CLR
NO.SLV	SETHEM.SLV	SETCUFF.SLV
SETELASTIC.SLV	DOLMAN.SLV	KIMONO.SLV
RAGLAN.SLV	OTHER.SLV	NO.WST
ELASTIC.WST	ELASTICSEAM.WST	FITTED.WST
GATHERFIT.WST	FITGATHER.WST	GATHERGATHER.WS
OTHER.WST	NO.BND	GIRL.BND
BOY.BND	NO.PKT	PATCH.PKT
INSEAM.PKT	INSET.PKT	BUTTON.PKT
OTHER.PKT	HOOKDRESS.CLS	HOOKBAND.CLS
BUTTONHOLE.CLS	BUTTONLOOP.CLS	NO.CLS
OTHER.CLS	STRAIGHT.HEM	FULL.HEM
FLARED.HEM	PANTS.HEM	OTHER.HEM

The following are necessary files to run the Guide21 program. Guide21.dal is in fact the source code for the program, while guide21.exe is the executable file. Swnames.lis is a list of the data files above.

GUIDE21.DAL	GUIDE21.OBJ	GUIDE21.EXE
GUIDE21.PRM	GUIDE21.RST	SWNAMES.LIS
SUMMARY.LIS		

The following files are created within the student's directory.

Guide.lis contains the individualized guidesheet and may be printed to any printer which is connected to the VAX.

COPY.COM	GUIDE.LIS	GUIDE21.PRM
GUIDE21.RST		

Surveys and Correspondence

In an attempt to determine the need for the guidesheet program, surveys were sent to students who took the HTC 300 course during both the fall and winter quarters of the 1987-88 school year. Samples of the surveys and letters sent to these students can be found on pages 20 - 22. The results of the questionnaire revealed that the students were often unsure of the proper garment construction techniques, and that many of the students did not know where to go for help beyond asking for the professor's assistance. All of the students polled felt that it would have been helpful to have a personalized instruction sheet which explained how to sew the garment together.

The GUIDE21 program was successfully tested with a group of HTC 300 students during the spring of 1988. A comparable questionnaire, which can be found on page 23, was given to these students to complete after they had used the guidesheets to aid them in the construction of their garments. All of the students who filled out the survey agreed that it was helpful to have a personalized guidesheet.

In summary, the feedback from the students confirms the fact that there is a need for such a program as the one presented here; furthermore, it has been shown that the program can be a helpful tool in the flat pattern design course. Now that the program has been successfully developed, it is left to the professors and students of the future to realize its potential.



Ball State University

College of Applied Sciences and Technology
Department of Home Economics

April 14, 1988

Hello!

Since you were a student in last quarter's Flat Pattern Design Class, I am asking your help in providing some information about the course. I am working on a project with Dr. Sue Whitaker which will try to help the students in future flat pattern classes.

We are writing a program on Ball State's computer which will create a personalized guide sheet of instructions on how to construct a garment once the pattern has been designed. The way the program works is that it asks questions about the garment design and then it prints out instructions based on the student's answers. The instructions also point the student to specific reference books and gives page numbers to look at for further help.

We are trying to assess the need for such a program as ours, and we would greatly appreciate your help in this process. Please fill out the enclosed questionnaire and return it to Dr. Whitaker as soon as possible.

Thank you,

Barb Baumann



Ball State University

College of Applied Sciences and Technology
Department of Home Economics

April 14, 1988

Hello!

Since you were a student in last fall quarter's Flat Pattern Design Class, I am asking your help in providing some information about the course. I am working on a project with Dr. Sue Whitaker which will try to help the students in future flat pattern classes.

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We are trying to assess the need for such a program as ours, and we would greatly appreciate your help in this process. Please fill out the enclosed questionnaire and return it to Dr. Whitaker as soon as possible.

Thank you,

Barb Baumann

Flat Pattern Design Course Questionnaire

Directions: Please answer each question by checking the appropriate response.

1. Had you ever sewn before taking the HTC sequence? YES____ NO____
2. How many garments have you made within the past year?
0-5____ 6-10____ 11-15____ 16 or more____
3. Do you enjoy sewing? YES____ Usually____ Sometimes____ NO____
4. Once the pattern was designed in HTC 300 and you were ready to begin work on your actual garment:
Did you know how to construct your garment?
YES____ Usually____ Sometimes____ NO____
Did you feel comfortable working on your own?
YES____ Usually____ Sometimes____ NO____
Did you rely on the professor to tell you what steps to follow in constructing your garment?
YES____ Usually____ Sometimes____ NO____
Did you know where else to go for help besides the professor/graduate assistant?
YES____ Usually____ Sometimes____ NO____
Do you think it would have been helpful to have a personalized instruction sheet which explained how to sew the garment together?
YES____ Usually____ Sometimes____ NO____
5. Please include any comments you have about the course or about our project which you think might be helpful. Feel free to use the back of this page.

Thank you for help!
Please return to:
Dr. Sue Whitaker
Department of Home Economics
PA 150

Flat Pattern Design Course Questionnaire

Directions: Please answer each question by checking the appropriate response.

1. Had you ever sewn before taking the HTC sequence? YES____ NO____

2. How many garments have you made within the past year?

0-5____ 6-10____ 11-15____ 16 or more____

3. Do you enjoy sewing? YES____ Usually____ Sometimes____ NO____

4. Once the pattern was designed in HTC 300 and you were ready to begin work on your actual garment:

Did you know how to construct your garment?

YES____ Usually____ Sometimes____ NO____

Did you feel comfortable working on your own?

YES____ Usually____ Sometimes____ NO____

Did you rely on the professor to tell you what steps to follow in constructing your garment?

YES____ Usually____ Sometimes____ NO____

Did you know where else to go for help besides the professor/graduate assistant?

YES____ Usually____ Sometimes____ NO____

Do you think it was helpful to have a personalized instruction sheet which explained how to sew the garment together?

YES____ Usually____ Sometimes____ NO____

5. Please include any comments you have about the course or about our project which you think might be helpful. Feel free to use the back of this page.

Thank you for help!

Please return to:

Dr. Sue Whitaker

Department of Home Economics

PA 150

A Sample Guidesheet...

type guide.lis
HTC300 PERSONAL GUIDE SHEET
STAYSTITCHING

The purpose of staystitching is to keep the garment edges from stretching out of shape as the garment is handled during construction. Specific areas which need staystitching are the neckline and armscye.

Staystitching is a row of regular machine stitching through a single thickness of fabric. The line of stitching should be placed 1/2 inch from the edge. Staystitching is done with the grain, usually from the widest to the narrowest part of the garment.

For more information on staystitching see page 57 of the Unit Method of Clothing Construction.

GATHERS

Gathers give a soft, rounded shape which is easy to fit and comfortable to wear. They may be found at the waistline, sleeves, cuffs, yoke, or neckline. They are formed when a larger piece of fabric is drawn up to fit a smaller piece.

Gathers start with two stitching lines on a long piece of fabric. The threads are then pulled at each end to draw up the fabric so that it can be sewn to a shorter length of fabric.

1. Set stitch length to baste (6 - 8 stitches per inch). If you loosen the upper thread tension, it will be easier to gather up the fabric. STITCH 5/8" from the raw edge starting and ending at seamline. STITCH a second row in the seam allowance, about 1/4" away from the first row.
2. PIN the stitched edge to the corresponding garment piece, with right sides of the fabric together. Match seams, notches, and other markings.
3. PULL both bobbin threads, sliding the fabric along the threads to gather.
4. PIN gathers in place at frequent intervals, distributing gathers evenly between pins.
5. Reset stitch length and tension for regular sewing. STITCH with gathered side up, just outside the 5/8" gathering line.
6. TRIM seam allowances of any seams that have been sewn into the stitching line, trimming off corners at a diagonal.
7. PRESS seam allowance on wrong side, then open garment and press seam in the direction it will lie in the finished garment.
*** Press seam toward gathers for puffy look, toward garment for a smoother look.

See pages 71-72 in the Unit Method of Clothing Construction for further help.

FRENCH SEAM

French seams are best suited to lightweight fabrics, especially sheer fabrics. A French seam should be used only on straight seams (such as those found at the bodice shoulder and side seams and skirt seams). A plain seam would need to be used for curved areas (to set in sleeves, put on a collar or facing).

1. PIN WRONG sides of fabric together.
2. STITCH fabric together $\frac{3}{8}$ inch from the edge.
3. TRIM the seam allowance to about $\frac{1}{8}$ inch.
4. FOLD RIGHT sides together with stitching line exactly on fold.
5. PRESS the seam flat.
6. STITCH $\frac{1}{4}$ inch from the fold.
7. PRESS the seam to one side.

For more information of the French seam see page 77 of the Unit Method of Clothing Construction.

PLAIN SEAM

To make a plain seam, pin fabric right sides together and stitch, backstitching at the beginning and the end of the seam. On the wrong side of the fabric, PRESS the seam flat, then PRESS seam open. The seam edges may be finished by:

- A. pinking and stitching the edges.
- B. machine zigzagging the edges.
- C. machine overcasting the edges.
- D. binding the edges (this is especially neat for an unlined jacket).
- E. turning and stitching under the raw edges (turn under $\frac{1}{8}$ inch or less of seam allowance and stitch).

For more information on these types of seam finishes see pages 77-80 of the Unit Method of Clothing Construction.

ZIPPER

Since you do not have a zipper, you will need to proceed on to finish your neckline.

FITTED FACING ON A V OR ROUNDED NECKLINE

Before applying the neckline facing you should have put in the zipper if one is needed and joined the shoulder seams together. PRESS shoulder seams open.

1. Interface the facing pieces. With right sides together join the the facing pieces at the shoulder seam. PRESS seams open. Finish the outside edge of the facing with the same finish that was selected to finish the seams.
2. Pin facing to the neck of the garment with right side together matching shoulder seams and notches. Stitch in place $\frac{5}{8}$ inch

from edge. If garment has a V neckline stitch twice in the V area to reinforce.

3. Trim, grade and clip the neckline seam. Turn facing to the wrong side of the garment and press with the point of the iron.
4. Understitch from the right side of the garment through the facing and the seam allowance. If topstitching is desired understitching may not be necessary.
5. Tack the facing to the garment at the shoulder seam and zipper, if one has been used. PRESS well.

For more information on fitted neckline facings see pages 83-85 of Unit Method of Clothing Construction.

SET-IN SLEEVE WITH HEM

In this section you will be given directions for a plain (smooth cap) set-in sleeve. If your sleeve has gathers, pleats, or tucks you will need to do these before setting in the sleeve.

To make the sleeve:

1. Put two rows of ease stitching from notch to notch around the cap of the sleeve. One row is 5/8 inch from the edge and the second is 1/2 inch from the edge.
2. With right sides together stitch the underarm seam of sleeve. Finish the seam in the manner other seams have been finished on the garment.
3. The hem in the sleeve should be finished in the same way as the hem in the garment. Please refer to the hem directions given later in the guidesheet.

To set sleeve into bodice:

1. Pull ease thread from both sides to form a cap. In a plain sleeve there should not be gathers, just a smooth cap.
2. Pin sleeve into armhole with right sides together matching at shoulder notches and underarm seam. HAND BASTE sleeves in and try on to check fit. (Need to have both sleeves in before trying on garment.)
3. If fit is acceptable machine stitch sleeves in place. Stitch first at 5/8 inch and then stitch a second time around the sleeve at just inside the 5/8 stitching line. This will reinforce the sleeve.
4. On all fabrics except sheer ones trim our the bottom (underarm) area of sleeve from notch to notch. Finish sleeve seam with a zigzag stitch. On a sheer fabric the sleeve may be trimmed down to 1/4 to 3/8 inch all the way around the sleeve and the raw edge bound with a bias tricot tape as a seam finish.
5. Press only the seam allowance of the sleeve. DO NOT PRESS into the sleeve cap.

For more information on the set-in sleeve with a hem see pages 108-11 of the Unit Method of Clothing Construction.

WAISTLINE WITH A BODICE THAT IS GATHERED ONTO A FITTED SKIRT

This dress has bodice which gathered in to fit onto a fitted skirt.

1. All seams on the bodice and skirt should be PRESSED open and finished before joining the two together.
2. Stitch two rows of ease stitching around the bottom of the bodice. Pull threads of ease stitching to make bodice fit the skirt.
3. With right sides together pin bodice to skirt matching side seams, center front and center back. Stitch seam $\frac{5}{8}$ inch from edge.
4. Machine zigzag seam allowance edges together to finish the seam. PRESS the waistline seam up into the bodice.

For more information on putting a waistline which has a gathered bodice onto a fitted skirt see page 120 in the Unit Method of Clothing Construction or see your instructor.

SPECIAL PROBLEM WAISTBAND

Since you do not have a skirt or pants you do not need any directions on the waistband.

NO POCKETS

Since your garment does not have pockets you can proceed on to the next construction step.

BUTTONS AND BUTTONHOLES

Buttons and buttonholes are a pretty universal method of closure. They are used extensively on blouses and shirts.

1. Transfer the markings for button and buttonhole location to your garment. Know if you are making vertical or horizontal buttonholes.
2. Buttonholes will be made on the electronic machine. To use this you are required to get assistance from either the instructor or the graduate assistant.
3. Once buttonholes are made you are ready to cut. Cut through the center being careful not to cut the bar tacks at each end.
4. Mark the location of buttons. If the buttonhole is vertical the button goes in the center of the opening. If the buttonhole is horizontal the button is marked $\frac{1}{8}$ inch from the outside end of the buttonhole.
5. Sew the button on using a double thread. If fabric is heavy you may have to make a shank if using a flat button. To make a shank insert a spacer while sewing on the button. Remove spacer and wrap thread around the thread between fabric and button to form a thread shank. Secure end of thread.
6. Flat buttons may be attached using the sewing machine if the special foot is available.

For more information on making buttonholes and sewing on buttons see pages 94-5 and 105 of the Unit Method of Clothing Construction.

DRESS/SKIRT WITH A FULL STRAIGHT SKIRT

The hem finish selected should reflect the type of fabric used in construction of your garment. The methods suggested would work on any type of fabric suited to this style of garment.

1. Measure and mark hem to determine the correct length of the finished garment. Wear belts and appropriate shoes when marking hem.
2. Pin up hem at markings and try on to check length and general appearance.
3. A straight skirt/dress with a full skirt should have no more than two inches of hem. Measure depth of hem from bottom of garment. Mark and cut to get width of hem even.
4. Finish the raw edge of the hem in the same way in which you finished the seams.
5. Pin hem in place. Hand stitch hem using the stitch recommended for the edge finish.
 - a. turned under edge finish uses the blind lock stitch.
 - b. pinked and stitched edge finish uses the hemming stitch.
 - c. bound edge finish uses the hemming stitch.
 - d. machine zigzag uses the hemming stitch.
 - e. machine overcast uses the hemming stitch.
6. Once the hem is completed remove pins and PRESS the hem well.

NOTE: If the fabric used is a lightweight sheer a machine hem which has been turned under twice would be acceptable.

For more information on the hem for a dress/skirt with a full straight skirt see page 138-43 of the Unit Method of Clothing Construction.

With the completion of the hem you have completed your garment. You should now give the garment a good FINAL PRESSING.

The Program...


```

;
;.....
;
;      Introduction to the lesson GUIDE to be used in HTC 300.
;      This describes the objectives and purpose of the program.
;
;.....
;
```

```
;
;
; This unit will load the files from the array.
;
;
```

```
UNIT      LOAD
OPEN      "BSU$USER_3:[00SHWHITA]SWNAMES.LIS",0,READ
FOR       N:=1,57
.         GET          0, OPTIONS[N,1]
.         ASSIGN      OPTIONS[N,2]:="0"
ENDFOR
CLOSE     0
```


AT 410
WRITE GOOD! You are now on the next page. If you will do this each time you have answered a question, you will be able to proceed through the program.

DIRECTIONS: As you move through the program you will be asked to respond to various questions about the design of your garment. Please be very careful in answering each question as the response will determine the printed directions you are given for constructing your garment.

NOTE: If you hit the wrong letter, you can use the DELETE key to erase your answer and then you can replace it with the correct one. (The DELETE key is on the upper right-hand part of the keyboard.) For each question, press RETURN after you have selected an answer.

AT 1850
MODE INVERSE
WRITE PRESS RETURN
MODE NORMAL
PAUSE
ERASE

.....
;
;
;
This unit is designed to allow the student to identify the type of
fabric they are using in constructing their garment. This will
determine the type of construction techniques used.
;
;
;
.....

UNIT FABRIC
AT 105
SIZE 2
ITALICS -20
WRITE FABRIC
AT 309
ITALICS 0
SIZE 1
WRITE The type of fabric you have chosen for your garment will effect the construction techniques you will need to use. This is especially true for seam finishes, interfacing, and hems. From the choices given below select the type of fabric that most nearly describes the fabric you are using in your project.
AT 910
WRITE WHAT TYPE OF FABRIC ARE YOU USING FOR YOUR GARMENT?
AT 1015
WRITE A. Lightweight synthetic/cotton blend
B. Medium to heavy weight synthetic/cotton blend
C. Lightweight 100% synthetic
D. Medium to heavy-weight 100% synthetic
E. Lightweight knit
F. Medium to heavy-weight knit
G. Other
AT 1810
MODE INVERSE
WRITE


```

;
;
; The purpose of the dart unit is to determine what type of shaping
; techniques are used in his/her garment.
;
;
;

```

```

UNIT      SHAPING
AT        105
SIZE      2
ITALICS   -20
WRITE     SHAPING
ITALICS   0
AT        509
SIZE      1
WRITE     Shaping a flat piece of fabric to the curves of your figure can be
          accomplished with several different shape building techniques. Darts,
          gathers, pleats, and tucks all work to control fabric fullness, but ea
          creates a different effect.
AT        1010
WRITE     WHAT SHAPING TECHNIQUE DOES YOUR GARMENT HAVE?
AT        1215
WRITE     A. Darts
          B. Gathers
          C. Tucks
          D. Pleats
          E. None
AT        1815
MODE      INVERSE
WRITE     RECORD YOUR RESPONSE AND PRESS RETURN
MODE      NORMAL
QUERY     *
RIGHT     A|B|C|D|E
WRONG
.         WRITC   VALID CHOICES ARE A - E.
.         PAUSE   ELAPSED,3.0
ENDQ
TEST      RESPONSE
VALUE     "A","a"
.         ASSIGN  OPTIONS[2,2]:="1"
VALUE     "B","b"
.         ASSIGN  OPTIONS[3,2]:="1"
VALUE     "C","c"
.         ASSIGN  OPTIONS[4,2]:="1"
VALUE     "D","d"
.         ASSIGN  OPTIONS[5,2]:="1"
VALUE     "E","e"
.         ASSIGN  OPTIONS[2,2]:="0"
ENDTEST
ERASE

```

```

;
;
; The purpose of this unit is to determine the type of seams and seam
; finishes needed on the garment. No response is needed from the studen
; as this what is needed will be determine from the type of fabric being
; used and the style of garment being made.
;
;
;

```



```

.      ASSIGN  OPTIONS[20,2]:="1"
VALUE  "G"    "g"
.      ASSIGN  OPTIONS[21,2]:="1"
ENDTEST
ERASE

```

```

UNIT      SLEEVES
AT        105
SIZE      2
ITALICS   -20
WRITE     SLEEVES
AT        310
ITALICS   0
SIZE      1
WRITE     The armscye of your garment can be finished in several ways, including
sleeveless.  Select the description which describes your sleeves.
AT        610
WRITE     WHAT TYPE OF SLEEVE IS IN YOUR GARMENT?
AT        815
WRITE     A.  Sleeveless
          B.  Set in sleeve with hem
          C.  Set in sleeve with cuff
          D.  Set in sleeve with elastic at wrist
          E.  Dolman sleeve with hem
          F.  Kimono sleeve with hem
          G.  Raglan sleeve with hem
          H.  Other
AT        1615
MODE      INVERSE
WRITE     RECORD YOUR RESPONSE AND PRESS RETURN
MODE      NORMAL
QUERY     *
RIGHT     A\B\C\D\E\F\G\H
WRONG
.         WRITC    VALID CHOICES ARE A - H.
.         PAUSE    ELAPSED,3.0
ENDQ
TEST      RESPONSE
VALUE     "A","a"
.         ASSIGN   OPTIONS[22,2]:="1"
VALUE     "B","b"
.         ASSIGN   OPTIONS[23,2]:="1"
VALUE     "C","c"
.         ASSIGN   OPTIONS[24,2]:="1"
VALUE     "D","d"
.         ASSIGN   OPTIONS[25,2]:="1"
VALUE     "E","e"
.         ASSIGN   OPTIONS[26,2]:="1"
VALUE     "F","f"
.         ASSIGN   OPTIONS[27,2]:="1"
VALUE     "G","g"
.         ASSIGN   OPTIONS[28,2]:="1"
VALUE     "H","h"
.         ASSIGN   OPTIONS[29,2]:="1"
ENDTEST
ERASE

```



```

D. Button and thread loop
E. I do not have any closures
F. Other
AT 1615
MODE INVERSE
WRITE RECORD YOUR RESPONSE AND PRESS RETURN
MODE NORMAL
QUERY *
RIGHT A:B:C:D:E:F
WRONG
. WRITC VALID CHOICES ARE A - F.
. PAUSE ELAPSED,3.0
ENDQ
TEST RESPONSE
VALUE "A","a"
. ASSIGN OPTIONS[47,2]:="1"
VALUE "B","b"
. ASSIGN OPTIONS[48,2]:="1"
VALUE "C","c"
. ASSIGN OPTIONS[49,2]:="1"
VALUE "D","d"
. ASSIGN OPTIONS[50,2]:="1"
VALUE "E","e"
. ASSIGN OPTIONS[51,2]:="1"
VALUE "F","f"
. ASSIGN OPTIONS[52,2]:="1"
ENDTEST
ERASE

```

This unit will get the student directions on the type of hem that is appropriate for them to use depending upon the type of garment being made and the type of fabric used.

```

UNIT      HEM
AT        105
SIZE      2
WRITE     HEM
AT        305
SIZE      1
WRITE     The type of hem used to finish a garment is dependent upon both
           the fabric and style of the garment. The type of fabric used
           to make your garment was identified earlier. Additional
           information on your garment design will help to determine the
           type of hem needed.
AT        910
WRITE     WHICH OF THE FOLLOWING BEST DESCRIBES YOUR GARMENT?
AT        1015
WRITE     A. Dress/skirt with a straight skirt
           B. Dress/skirt with a full straight skirt
           C. Dress/skirt with a flared skirt
           D. Pants
           E. Other
AT        1615
MODE      INVERSE
WRITE     RECORD YOUR RESPONSE AND PRESS RETURN
MODE      NORMAL
QUERY     *
RIGHT     A|B|C|D|E
WRONG

```


[illegible]

ENDLESSON
\$